

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method of updating a print driver in a print server comprising the operations of:

gathering printer configuration data from a printer at a printer port;

monitoring the incoming printer configuration data for changes;

recognizing the changes in configuration data;

waking an installed server print driver and alerting the server print driver of changes in configuration data to allow the print driver to convert the ~~summarized~~ configuration data to an internal format; and,

saving the changes in configuration data ~~as summarized data~~ in a spooler registry.

2. (Canceled)

3. (Currently Amended) The method of claim 1 ~~[[2]]~~ wherein a printer manager thread of the print server performs the operation of alerting the server printer driver.

4. (Original) The method of claim 1 wherein the monitoring operation further comprises:

polling a printer to periodically gather new printer configuration data; and

comparing data gathered in the polling operation with stored printer configuration data.

5. (Original) The method of claim 4 wherein the monitoring operation further comprises:

setting flags when the comparing operation determines that the new printer configuration data does not match the stored configuration data; and

waking a print driver to make a configuration change that matches the set flag.

6. (Currently Amended) The method of claim [[2]] 1 wherein the waking operation is executed by transmitting a print driver event API defined by a computer Operating System.

7. (Original) A method of updating a print driver in a client device comprising the operations of:

gathering summarized printer data from a printer at a printer port of a print server;

monitoring the incoming printer configuration data at the print server for changes in the configuration data; and,

updating a print server registry of the print server when a change in summarized configuration data occurs.

8. (Previously Presented) The method of claim 7 wherein the client and server have the same operating system print spooling characteristics.

9. (Original) The method of claim 7 wherein a client that maintains a local client registry requests via a pipe server thread the transfer of summarized printer data to the client device.

10. (Original) The method of claim 7 further comprising the operation of updating a client device print registry when a change in summarized printer data occurs.

11. (Original) The method of claim 7 wherein the transferring operation occurs using a server thread that determines configuration options from the server registry and transfers the configuration options to the client device.

12. (Original) The method of claim 11 wherein the transfer of the configuration options occurs using an operating systems object.

13. (Original) The method of claim 7 wherein the summarized printer data is printer configuration data.

14. (Original) The method of claim 7 wherein the summarized printer data is printer status data.

15. (Previously Presented) A system to output printed documents comprising:
a printer to convert electronic signals into a printed document, the printer having a configuration state that corresponds to a particular period in time;
a first client device that receives an input and transmits print signals to define a document to be printed on the printer, the first client including a local print registry that maintains the configuration states of the printer;
a second client device that receives a second input and transmits print signals to define a second document to be printed on the printer;
a print server coupled to the first client device and the second client device, the print server including a print server registry that maintains the configuration states of the printer; and,
software running on the print server, the software including a first code section that periodically polls the printer and compares results from the poll to the

server registry to determine changes in configuration states, the software further including a second code section that transmits the changes in configuration states to the first client device and the second client device.

16. (Original) The system of claim 15 wherein data in the print server registry is regularly transferred to the local registry of the first client and a second local registry of the second client.

17. (Original) The system of claim 15 wherein the transfers occur when polling of the first client and polling by the second client determines that a change in configuration states of the printer has occurred.

18. (Previously Presented) The system of claim 15 wherein the print server runs software that conforms to a computer operating system and uses a pipe server thread that transfer the changes in configuration states from the printer to the client device.

19 - 20 (Canceled)

21. (Previously Presented) The system of claim 15 wherein the print server operates a first operating system and the second client device operates a second operating system that uses the server print registry as a local registry.

22. (Original) The system of claim 15 wherein the print server includes a driver that receives notice of changes in printer configuration states and updates the print server registry.

23. (Withdrawn) A computer code to update printer data comprising:

a first code section to periodically poll a printer that outputs data from client devices, the first code section to compare the results from the poll to a server registry that maintains the configuration states of the printer, the first code section to determine changes in configuration states;

a second code section that transmits the changes in configuration states to a plurality of client devices coupled to the server to allow the client devices to update a local registry.

24. (Withdrawn) The computer code of claim ~~[[22]]~~ 23 wherein the computer code runs on a print server.

25. (Withdrawn) The computer code of claim ~~[[22]]~~ 23 further comprising:

a third code section to interact with a first client device of the client devices, the third code section to instruct the first client device to update a local print registry in the first client device, the local print registry of the first client device to maintain the configuration state of the printer.

26. (Withdrawn) The computer code of claim ~~[[22]]~~ 23 wherein the configuration states of the printer corresponds to the printer settings at a particular point in time.

27. (Withdrawn) The computer code of claim ~~[[22]]~~ 23 wherein the computer code conforms to a computer operating system and uses a pipe server thread that transfer the changes in configuration states from the printer to the client device.

28. (New) A method to output printed documents from a printer in response to a client device, the printer changing between configuration states, the method comprising:
operating a server to repeatedly poll the printer and compare results with the server's stored printer configuration information to detect change between configuration states;

operating the server to transmit to the client device a detected change between configuration states; and

providing an input to the client device, the input causing the client device to transmit print signals to the printer in accordance with the detected change between configuration states; the printer responding to the print signals by printing a document.

29. (New) A method of automatically updating a client device's stored printer configuration data, the method comprising:

operating a server to detect a change in a printer's configuration and to update the server's stored printer configuration data when the printer changes configuration; and

using the server's updated printer configuration data to update the client device's stored printer configuration data.

30. (New) A method of automatically updating a client device's stored data about a printer's configuration and status, the method comprising:

operating a server to detect a change in the printer's configuration or status and to update the server's stored data about the printer's configuration and status when the printer changes configuration or status;

using the server's updated stored data to provide printer configuration and status data to the client device; and

operating the client device to update the client device's stored data about the printer's configuration and status using the printer configuration and status data.

31. (New) A method of automatically updating a client device when change occurs in a printer's configuration or status, the method comprising:

- operating a server to detect a change in the printer's configuration or status and to set control flags indicating the change; and

- operating the client device to provide instructions to the printer in accordance with the control flag settings.

32. (New) A method of automatically updating a client device about a printer's configuration and status, the method comprising:

- operating a server to update the server's stored data about the printer's configuration and status; and

- operating the client device to periodically poll the server to obtain information about change in at least one of the printer's configuration and the printer's status.

33. (New) A method of automatically updating a client device about a printer, the client device and printer communicating through a server, the method comprising:

- periodically transmitting a request signal to the printer; each request signal transmission causing the printer to provide a respective response signal with information about at least one of the printer's configuration and the printer's status;

- using the response signals to detect a change in the printer's configuration or status; and

- updating the client device with the detected change in the printer's configuration or status.